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March 19, 2010

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Marlene H. Dortch Office of the Secretary Federal Communications Commission 445 12th Street, S.W. Room TW A325 Washington, DC 20554

Federal Communications Commission Office of the Secretary

RE: Special Access Rates for Price Cap Local Exchange Carriers; WC

Docket No. 05-25, RM No. 10593

Dear Ms. Dortch:

Enclosed, please find the public version of the Reply Comments of Verizon and Verizon Wireless, which replaces the public version previously filed on February 24, 2010 in the abovelisted dockets. The enclosed document has been redacted for public inspection. Verizon and Verizon Wireless previously filed a confidential version of this document containing the proprietary information under the auspices of the Protective Order issued in this docket.

Verizon requests that the previously filed public version of the Reply Comments of Verizon and Verizon Wireless, which was filed on February 24, 2010, be designated confidential pursuant to the protections outlined in the Protective Order issued in the above-listed dockets, due to technical issues relating to the proprietary information in that document.¹

Please contact me if you have any questions or concerns.

Respectfully submitted,

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Rashann Duvall

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¹ First Protective Order, 20 FCC Rcd 10160 (2005).

Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

In the Matter of

Special Access Rates for Price Cap Local Exchange Carriers

WC Docket No. 05-25, RM-10593

REPLY COMMENTS OF VERIZON AND VERIZON WIRELESS

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February 24, 2010

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Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

In the Matter of

Special Access Rates for Price Cap Local Exchange Carriers WC Docket No. 05-25, RM-10593

REPLY COMMENTS OF VERIZON AND VERIZON WIRELESS1

Introduction And Summary

Verizon explained in its comments that the Commission's analytical framework should begin with the record evidence that shows special access prices have steadily fallen and output has increased, which is exactly the opposite of what would happen if incumbent carriers were exercising market power. Only a few commenters attempt to question these price declines, but the real prices customers pay Verizon for special access services have declined by 24 percent between 2002 and 2008. These declining real prices, together with increasing output, are primary indicators that market forces are working. Contrary to the claims of some commenters, there has been no market failure requiring the Commission to impose more intrusive regulations on special access rates.

Beyond this record evidence, Verizon explained that any appropriate analytical framework must take into account the characteristics of the special access business, from both a supply and demand perspective. It must be forward looking, as well as take into account all competitive alternatives that are currently available to customers of special access services

In addition to Verizon Wireless, the Verizon companies participating in this filing ("Verizon") are the regulated, wholly owned subsidiaries of Verizon Communications Inc.

(along with those that will be available). To properly assess competition in this dynamic industry, the Commission's analytical framework should capture recent competitive activities and demand growth as well as planned future activities and projected demand.

The Commission's competitive analysis should include all competitors providing high capacity services. Contrary to the suggestions of the proponents of more regulation, the Commission's competitive analysis should not be limited to the intramodal competitors that have widely deployed fiber throughout the metropolitan areas and office parks where demand is concentrated. The Commission's analysis should also include intermodal competitors, such as cable and fixed wireless, even if the high capacity services they offer are not perfect substitutes for special access services in all situations. Given the continuing growth in demand for special access services and high capacity services, an appropriate forward looking framework must take the continuing rapid growth of intramodal and intermodal competitive alternatives. This is particularly important to assess the competitive alternatives available for wireless backhaul.

Proponents of more regulation suggest an analytical framework that would skew the Commission's results. Rather than consider all competitive alternatives, these commenters suggest that the Commission slice and dice the product and geographic markets into tiny segments that exclude important competitive alternatives. But even the most competitive markets artificially can be made to look monopolistic by adopting overly narrow definitions of the product and geographic markets. In order to ensure the validity of the Commission's conclusions, the Commission's analytical framework should adopt product and geographic market definitions that are broad enough to include all competitive alternatives.

Consistent with this analytical framework, the Commission should focus on those limited areas that are in dispute – regulated TDM-based DS1 and DS3 special access services outside of

the metropolitan areas and office parks where demand is concentrated. There can be no serious dispute at this point that a variety of competitors are targeting these areas of concentrated demand. Contrary to the suggestions of a few commenters, there is no reason for the Commission to expand the scope of this proceeding to include highly competitive services, such as Ethernet and OCn services. There is abundant evidence that competitors are capable of providing these higher level services. In addition, because higher level services, such as Ethernet and OCn services, generally require the deployment of new facilities, incumbent carriers have no advantage over competitors by virtue of their legacy networks.

The Commission's analytical framework should refrain from relying on backward looking market shares to assess competition for high capacity services as some commenters have suggested. Such a static analysis would be impractical and would not capture the rapidly evolving competitive impact of the availability of competitive alternatives. It would also fail to capture new and planned competitive entry and the ability of competitors to expand their networks and service offerings.

The Commission's analytical framework should also not attempt to evaluate competition by using arbitrary benchmarks of prices, costs or profits, as some commenters have suggested. These proposals are a transparent attempt to turn back the clock to cost-based regulation, which the Commission abandoned years ago because it is an inferior form of regulation that is not compatible with competition. Moreover, none of the benchmarks offered by these commenters reflects what would occur in a competitive market.

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I. THE EXISTING RECORD DEMONSTRATES SIGNIFICANT DECLINES IN REAL SPECIAL ACCESS PRICES, AS WELL AS INCREASING VOLUMES.

Verizon explained in its comments that market power is generally characterized by the ability to increase prices and restrict output and that neither of these two indicators of market power is present for special access services. In fact, the opposite is true – market pressures have driven prices down and customers have responded by increasing their purchases of high capacity services, including special access services. Incumbent carriers have, in turn, increased their output to respond to this increased demand.

In 2007, Verizon provided record evidence showing that between 2002 and 2006 the prices paid for Verizon's DS1 services fell an average of 5.28 percent per year, while the prices paid for Verizon's DS3 services during that same period fell an average of 4.97 percent per year, both in real terms.² More recently, Verizon showed that between 2002 and 2008 the real prices customers paid for its DS1s and DS3s have declined by 24 percent overall.³ These real price declines reflect the prices paid by Verizon's customers for DS1 and DS3 circuits under tariffs and discount plans after adjusting for inflation. Moreover, even in nominal terms, Verizon has not increased its tariffed rates for DS1 and DS3 special access services in areas subject to Phase II pricing flexibility regulation since 2002.

Other commenters also confirmed significant price declines for special access services.

For example, AT&T pointed out that "there is now a long track record of consistently falling

² See Comments of Verizon, Special Access Rates for Price Cap Local Exchange Carriers; WC Docket No. 05-25, RM-10593 (Aug. 8, 2007) ("Verizon 2007 Comments") at Attachment A: Supplemental Declaration of Dr. William E. Taylor, ¶ 7 ("Taylor Supp. Decl.").

³ See Letter from Donna Epps, Verizon, to Marlene Dortch, FCC, Special Access Rates for Price Cap Local Exchange Carriers, WC Docket 05-25 (Oct. 20, 2009).

prices, increased output, and vigorous competitive entry and investment." Dr. Carlton and Dr. Sider also noted that "average special access prices have fallen substantially in areas where full Phase II pricing flexibility has been granted." Qwest also explained that "the special access prices that customers actually pay ILECs have generally fallen across the board, year after year, for all classes of service since the current pricing flexibility regime was adopted in 1999."

Contrary claims that special access rates have increased are misleading in several respects. For example, Global Crossing claims that "Verizon's pricing in LATA 132 since 2001 ... shows that prices increased from 2001 to 2002 and then remained constant to the present."

However, Global Crossing bases its claims on two rates listed in just two of Verizon's tariffs; one of these is a month-to-month rate and the other is a rate for one of Verizon's several generally-available discount plans. Neither of these cited rates takes into account the discounts that are available under Verizon's pricing flexibility contract tariffs, many of which offer additional discounts on top of those that are available under Verizon's generally-available discount plans. By contrast, the price reductions Verizon submitted reflect prices actually paid by customers under all available discount plans.

In addition, Global Crossing only focuses on nominal tariff rates and has made no adjustment for inflation. Even under Global Crossing's stilted view of pricing, these tariff rates in pricing flexibility areas have not been increased in eight years. Taking inflation into account

⁴ AT&T Comments at 20.

⁵ AT&T Comments at Exhibit A: Declaration of Dennis W. Carlton and Hal S. Sider, ¶ 53 ("Carlton/Sider Decl.").

⁶ Owest Comments at 9.

⁷ Global Crossing Comments at 4-5.

means the real prices customers paid between 2002 and 2008 for their DS1s and DS3s have declined by 24 percent overall. As Dr. Topper explained, "special access prices should be examined in real (i.e., inflation-adjusted) terms to remove the effects of general inflation (i.e., changes in the general price level) and focus on the economically relevant issue, namely the change in the price of special access services relative to other goods." Topper Decl. ¶ 72.

To the extent there have been nominal increases to Verizon's month-to-month tariff rates, those increases were fully anticipated by the Commission. At the time the Commission introduced pricing flexibility, special access services had been subject to artificial regulatory price constraints for long periods, including a 10-year period during which special access rates were capped and subject to annual decreases, without regard to what competitive market prices might be. Given that history, the Commission acknowledged that, once pricing flexibility was implemented, special access prices would not necessarily decline in all cases, but would instead move both up and down, pushing toward some equilibrium price, consistent with what occurs in a competitive market. The Commission noted, for example, that, in some cases, special access prices might rise "because our rules may have required incumbent LECs to price access services below cost." Despite the Commission's expectations, the prices customers pay for special access services have followed an overall downward trend.

⁸ See Letter from Donna Epps, Verizon, to Marlene Dortch, FCC, Special Access Rates for Price Cap Local Exchange Carriers, WC Docket 05-25 (Oct. 20, 2009).

⁹ Access Change Reform; Price Cap Reform for Local Exchange Carriers, Fifth Report and Order and Further Notice of Proposed Rulemaking, 14 FCC Red 14221, ¶¶ 11-13 (1999), aff'd, WorldCom, Inc. v. FCC, 238 F.3d 449 (D.C. Cir. 2001).

¹⁰ *Id.* ¶ 155.

II. THE COMMISSION'S ANALYTICAL FRAMEWORK SHOULD BE FORWARD LOOKING AND INCLUDE ALL THE INFORMATION NEEDED FOR A PROPER COMPETITIVE ANALYSIS.

As Verizon explained in its comments, the record already contains substantial evidence of a healthy competitive marketplace for high capacity services. If, however, the Commission chooses to conduct any additional competitive analysis, it should adopt a forward looking analytical framework that is appropriate for the dynamic nature of the high capacity services marketplace.

The Commission has already recognized the importance of looking forward in conducting a competitive analysis, and should not take a different approach here. As early as 1982, the Commission found that "[r]egulatory policy must take cognizance of the dynamic factors existing in the marketplace" and that '[i]t should not be based solely on static conditions existing today." The Commission therefore consistently rejects "arguments . . . premised on data that are both limited and static" because they "fail to recognize the dynamic nature of the marketplace forces," including growth of and investment in "existing and developing platforms." 12

Verizon explained that competitors are rapidly deploying new networks and technologies and expanding existing networks to serve the growing demand for broadband. Cable companies, for example, continue to aggressively target additional business customers for high capacity services and are experiencing double digit growth. Cablevision reports that it has "gone to an all

¹¹ MTS-WATS Market Structure Inquiry, Second Report and Order, 92 F.C.C.2d 787, ¶ 133 (1982).

¹² Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 14853, ¶ 50 (2005).

Ethernet product" that "has been growing at 40% plus revenue growth for the last several years" and "that improved results were due principally to the continued expansion of the more efficient, higher margin Ethernet business." In 2009, Time Warner Cable's commercial capital spending increased 60 percent to \$352 million. Comcast reports that "[i]n business services, ... we've been growing this business, which is now quite sizable – revenues have been growing 40% to 50% very consistently."

In addition, fixed wireless is now starting to have a major impact, particularly in the marketplace for backhaul services for wireless carriers. FiberTower, for example, reported that, as of the end of the third quarter of 2009, it had increased the number of installed sites by 41

¹³ Final Transcript of CVC - Cablevision Systems Corp. at Bank of America Securities Media, Communications & Entertainment Conference at 11 (Sept. 9, 2009).

¹⁴ Cablevision Press Release, Cablevision Systems Corp. Reports Third Quarter 2009 Results at 2 (Nov. 3, 2009).

Our Time Warner Cable, Fourth-Quarter and Full-Year 2009 Results, http://files.shareholder.com/downloads/TWC/401404825x0x347063/8e5384b9-972a-4f3a-b23f-4bcf51217e9d/Q409 TWC CFO Preso DRAFT FINAL PDF.pdf. at 12 (Jan. 28, 2010). In 2009, Time Warner Cable's commercial data revenue grew 9 percent, commercial voice revenues grew 150 percent, and cell backhaul revenue grew more than 271 percent. Id. at 8. Dedicated Internet access and metro Ethernet services "represented almost 1/3 of third quarter [2009] commercial data revenues. Metro Ethernet sales in Q3 increased 86% year-over-year." Q3 2009 Time Warner Cable, Inc. Earnings Conference Call – Final, FD (Fair Disclosure) Wire, Transcript 110509a2455493.793 (Nov. 5, 2009) (statement by Time Warner Cable Senior COO Landel Hobbs).

¹⁶ Thomson StreetEvents, CMCSA – Q4 2009 Comcast Corporation Earnings Conference Call, Final Transcript, at 9 (Feb. 3, 2010) (statement by Comcast President and COO Steve Burke).

percent and the number of billing customer locations by 98 percent over the previous two years.¹⁷

Other commenters have noted that competitors are rapidly expanding their networks to provide high capacity services. For example, according to Dr. Carlton and Dr. Sider, "[a]vailable evidence indicates that in recent years LECs, CLECs, wireless providers, and cable operators have made large investments in building and expanding their networks to offer services that compete with special access services offered by LECs." Qwest similarly noted that competitors are "telling investors that their proximity to concentrated demand makes them ideally suited to expansion in the special access market, which they see as a huge growth area for their businesses."

In order to properly assess competition in this dynamic industry, the Commission's analytical framework should look forward to capture recent competitive activities as well as planned future activities. It should also capture the competitive alternatives that are available to customers today as well as the competitive alternatives that have been planned and can readily be made available to them.

The proponents of imposing additional regulations on special access prices make a variety of recommendations that would have the Commission look backward and ignore

http://www.fibertower.com/corp/downloads/press_releases/FTWR%20Q3%202009%20Earnings_%20Release%20110509%20Final.pdf (Nov. 5, 2009); FiberTower Press Release, FiberTower Reports Third Quarter 2007 Results, http://www.fibertower.com/corp/downloads/press_releases/FT_Q307_Earnings_ReleaseB.pdf (Nov. 14, 2007).

¹⁸ AT&T Comments, Carlton/Sider Decl. ¶ 44.

¹⁹ Qwest Comments at 12.

important sources of competition. They recommend that the Commission ignore all intermodal competitors despite ample record evidence that cable companies and fixed wireless providers are growing providers of competitive alternatives. They also ask the Commission to adopt very narrow market definitions that would exclude significant competitive alternatives to the incumbent carriers' special access services. All of these recommendations should be rejected.

A. The Commission's Competitive Analysis Should Include Intermodal Competitors.

Verizon explained that any analytical framework the Commission adopts to study competition for high capacity services must include any type of competitor and any type of technology that provides an alternative to special access services – e.g., intermodal competitors such as cable companies and fixed wireless providers. This should be an uncontroversial proposition given that the purpose of this proceeding is to establish a framework for analyzing competition, and it would make no sense to design a framework that excludes certain facts from even being analyzed. Indeed, as Dr. Topper explained, basic economic principles require consideration of all available competitive alternatives, including intermodal ones. See Topper Decl. ¶¶ 29-30.²⁰ Both the Commission and the courts have likewise recognized in other contexts that intermodal alternatives are to be considered in a proper analysis of competitive facts.²¹

²⁰ See, e.g., U.S. Dep't of Justice, Voice, Video and Broadband: The Changing Competitive Landscape and Its Impact on Consumers, http://www.usdoj.gov/atr/public/reports/239284.pdf, at 34 (Nov. 2008) (new "[e]ntry is more likely" in the case of intermodal competitors, which "can differentiate their products" and compete on available service features, where "enough consumers find the products sufficiently substitutable.").

²¹ See, e.g., Unbundled Access to Network Elements; Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, Order on Remand, 20 FCC Red

Verizon also explained that it was particularly important to include intermodal competition in the analysis here because of the significant and growing importance of cable companies for users of high capacity services. Even the National Cable Television Association (NCTA) acknowledged that "many cable operators provide high-capacity services that compete with special access services" and "expressed interest in working with Commission staff to develop a process that would provide the Commission with useful data regarding the extent of special access competition."²²

Notwithstanding this extensive evidence, two commenters – Sprint and tw telecom – argue that cable companies shouldn't be included in the Commission's analysis. They argue that "cable modern service is generally supplied on a 'best efforts' basis – without the quality of service guarantees that customers can obtain from special access providers – and lacks the dedicated capacity required by wireless operators and others" and that the "substantial price gap" between cable modern and special access services "indicat[es] an absence of substitutability." Both Sprint and tw telecom are focusing on the broadband access service that

^{2533, ¶ 39, 95, 215 (2005),} aff'd, Covad Communications Co. v. FCC, 450 F.3d 528 (D.C. Cir. 2006) (considering the evidence of intermodal competition in promulgating UNE rules); USTA v. FCC, 359 F.3d 554, 572-73 (D.C. Cir. 2004) ("USTA II") (holding that the "Commission cannot ignore intermodal alternatives" in assessing impairment); AT&T Corp. v. Iowa Utils. Bd., 525 U.S. 366, 389 (1999) (the Commission cannot, "consistent with [§ 251(d)(2)], blind itself to the availability of elements outside the incumbent's network," which includes intermodal alternatives.); USTA v. FCC, 290 F.3d 415, 429 (D.C. Cir. 2002) ("USTA I").

²² Letter from Steven F. Morris, NCTA, to Marlene H. Dortch, FCC, *Special Access*, WC Docket No. 05-25 (May 8, 2009).

²³ Sprint Comments at 20.

²⁴ tw telecom Comments at 11.

cable companies typically provide to mass market subscribers, rather than the dedicated high capacity services that cable companies also provide to many business customers.

Sprint and tw telecom wrongly assume that cable modem service is the only type of high-capacity services that cable operators make available using their cable networks. As explained above, cable operators do provide high-capacity services that compete with special access services offered by incumbent local exchange carriers. NCTA explained that "many cable operators view such services as a growing segment of their business" and "offer these services to businesses and to telecommunications providers." Cox, for example, offers DS1 and DS3 services directly to business customers. These services are not offered over a cable modem on a "best efforts" basis, but rather Cox markets that its services are delivered on a "high-tech, high-speed platform with protection switching and its own fiber-optic IP backbone, [that] gives you 99.99% network availability and a bit error rate threshold of 10-6 or better for impressively reliable service, digital quality sound, and unbeatable security." 27

Cable companies also make available Ethernet services, which they market as a direct alternative to traditional special access. Time Warner, for example, states that its "Business Class Ethernet" services, which are offered "at speeds ranging from 50 meg to GIG," provides

²⁵ Letter from Steven F. Morris, NCTA, to Marlene H. Dortch, FCC, Special Access, WC Docket No. 05-25 (May 8, 2009).

²⁶ See Cox Private Line, Features and functions to tailor your package, http://ww2.cox.com/business/hamptonroads/data/private-line/features.cox (last visited on February 23, 2010).

²⁷ See Cox Private Line data sheet, http://ww2.cox.com/wcm/en/business/datasheet/ds-private-line.pdf?campcode=xl_data_0908 (last visited on February 23, 2010).

"an affordable and reliable alternative to T-1 private line solutions." Cox states that its "Metro Ethernet" services are "available at a large number of locations served by Cox's Fiber-To-The-Premise or Hybrid Fiber Coax (HFC) networks, both serviced by Cox's highly redundant and reliable metro network architecture." Comcast states that it offers "Ethernet Dedicated Internet" service with "symmetrical dedicated Internet bandwidth configurable from 10 Mbps to 1 Gbps in 1 Mbps increments." Cablevision calls itself "the New York Metro area's leading provider of Ethernet Based Communications Solutions," and offers "scalable bandwidth options of 5 to 1,000 Mbps."

When cable operators provide these services, moreover, they generally tout robust levels of "reliability" and "service guarantees" for business customers. Time Warner states that its Ethernet services offer "[r]obust SLAs for availability, latency/repair and mean-time-to-repair (MTTR)" as well as "[e]nd-to-end network monitoring to ensure reliable operations." Comcast states that its Ethernet services have "high availability" that "keep your business running

²⁸ See https://www.twcbc.com/NYC/Products/ProductDetails/business-ethernet-solutions.ashx (last visited on February 23, 2010). Attachment C contains web pages showing that cable companies market their high capacity services directly to businesses.

²⁹ See http://ww2.cox.com/business/arizona/data/metro-ethernet.cox) (last visited on February 23, 2010).

³⁰ See http://business.com/ethernet/dedicated-internet.aspx (last visited on February 23, 2010).

http://www.optimumlightpath.com/ourservices_internet.shtml (last visited on February 23, 2010).

https://www.twcbc.com/NYC/Products/ProductDetails/business-ethernet-solutions.ashx (last visited on February 23, 2010); see also https://www.twcbc.com/Albany/Products/ProductDetails/dedicated-internet-access.ashx ("Time Warner Cable Business Class supports all Dedicated Access customers with industry leading Service Level Agreements(SLA) and Service Level Guarantees(SLG) for network performance.") (last visited on February 24, 2010).

smoothly," and that Comcast provides 24/7 monitoring and support through its Customer Management Center. 33 Cox states that its Ethernet offers "responsive business-class customer service" including a "dedicated local support team [that] is available to you 24 hours a day, 7 days a week."34

The Commission's framework should further acknowledge that cable operators are serving not only business customers, but also have expanded their footprint and introduced new services to meet the backhaul needs of wireless providers. The major cable operators have invested heavily to upgrade and extend their high-capacity networks to provide wireless backhaul services. Comcast states it is "expanding [its] cell backhaul operations and now ha[s] agreements with wireless carriers contracted for over 2000 towers. [Its] goal is to keep this business growing rapidly and this is an area where [it] would like to invest as much capital that gets a good return as possible." Time Warner Cable recently reported "271.4% Y/Y Growth" for its "Cell Backhaul" business. Cox has indicated that it's prepared to provide backhaul services to wireless providers deploying their 4G networks "because we're there and we can do sort of spurs off of our network" and "we're deploying capital to that area to be able to satisfy

³³ <u>http://business.comcast.com/ethernet/dedicated-internet.aspx</u> (last visited on February 23, 2010).

³⁴ <u>http://ww2.cox.com/business/arizona/data/metro-ethernet.cox</u> (last visited on February 23, 2010).

³⁵ Q2 2009 Comcast Corporation Earnings Conference Call – Final, FD (Fair Disclosure) Wire, Transcript 080609a2285950.750 (Aug. 6, 2009) (statement by Comcast Corp. COO Steve Burke: see also Comcast Corp., 3Q 2009 Results, at 11 (Nov. 4, 2009), http://files.shareholder.com/downloads/CMCSA/753959014x0x329261/33e5a9c9-7680-4025-a068-a46668578fa1/3Q09%20Slide%20Faces%20-%20Final.pdf (wireless backhaul is "~\$1Bn opportunity for Comcast").

³⁶ Rob Marcus, Senior EVP and CFO, Time Warner Cable, Fourth-Quarter and Full-Year 2009 Results, at 8 (Jan. 28, 2010).

that demand."³⁷ Charter said that "[w]e do not have the staff and resources right now to handle all of the cell backhaul requests coming from all of the towers going up in our footprint . . . [s]o we're ramping up to accommodate that, which is a good thing."³⁸

There is no question that the Commission's analytical framework should include cable companies as intermodal competitors. Any competitive analysis that excludes cable companies would be invalid. Topper Decl. ¶¶ 29-30.

Another intermodal competitive alternative that should be included in the Commission's analysis is fixed wireless. Verizon has already explained that fixed wireless providers are quickly becoming significant competitors for high capacity services because they have acquired spectrum assets and are able to deploy fixed wireless facilities very rapidly to meet customer needs. Verizon also demonstrated that fixed wireless is an important and growing alternative for high-capacity backhaul in wireless networks. Sprint, for example, has stated that it is "proceeding aggressively with its deployment of 4G WiMax technology" through its "\$7.4 billion investment in Clearwire," which "will use self-provisioned microwave backhaul to handle the high-bandwidth requirements associated with 4G applications to the maximum extent possible." Clearwire claims to have "one of the largest wireless backhaul networks in the

³⁷ See FCC National Broadband Plan Workshop, Wireless Broadband Deployment – General, Transcript, http://www.broadband.gov/docs/ws_03_deploy_wireless_transcript.pdf, at 35 (Aug. 12, 2009).

Light Reading's Cable Digital News (Dec. 4, 2009), http://www.lightreading.com/document.asp?doc_id=185425&site=lr_cable.

³⁹ Comments of Sprint Nextel Corporation, Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps To Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, As Amended by the Broadband Data Improvement Act, GN Docket No. 09-137 at 5 (Sept. 4, 2009).

world"⁴⁰ and has told analysts that it is investing in microwave equipment so it can self-provision facilities to meet "roughly 80 percent of its [wireless] backhaul... from microwave links."⁴¹ Clearwire also stated that it "will make its metro wireless backhaul networks available to Sprint at preferred rates, creating additional revenue opportunities for Clearwire and reducing costs for Sprint."⁴²

Qwest notes the "leading customers of fixed wireless backhaul services increasingly laud the benefits of that technology as a supplement to (or substitute for) traditional wireline special access services." Exalt Communications, a provider of fixed wireless backhaul, noted that "[m]obile operators deploying 4G services like WiMAX recognize that they need a steadily increasing amount of backhaul capacity, and there is no faster or more reliable way to get it than [Exalt Communications'] microwave backhaul systems," which "not only give them 'five-nines' reliability and much greater capacity, but also result in enormous operational cost savings by eliminating the need to lease lines."

⁴⁰ Leap Wireless International at Jefferies Panel Discussion, FD (Fair Disclosure) Wire, Transcript 090908ay.703 (Sept. 9, 2008) (statement by Clearwire Chief Strategy Officer Scott Richardson).

⁴¹ John Hodulik, UBS Investment Research, Clearwire Corp., at 13 (Dec. 19, 2008).

⁴² Sprint Nextel/Clearwire WiMax Call – Final, FD (Fair Disclosure) Wire, Transcript 050708a1844939.739 (May 7, 2008) (statement by Clearwire Chief Executive Ben Wolff).

⁴³ Owest Comments at 15.

⁴⁴ Exalt Communications Press Release, Hilbert Communications Adds Backhaul Capacity and Eliminates Recurring Leased Line Costs with Exalt Microwave Backhaul Systems (Feb. 16, 2010) http://www.exaltcom.com/Hillbert-Communications.aspx.

Notwithstanding this extensive evidence, PAETEC argues that the Commission "need not consider fringe competition from so-called nascent services such as . . . fixed wireless." Incredibly, in support of its position PAETEC relies on a complaint filed by the Justice Department nearly 10 years ago. 46 The record shows that during these last ten years, fixed wireless has made significant strides in competing for special access services. Dr. Carlton and Dr. Sider pointed to record evidence that "there are more than a dozen fixed wireless providers offering service throughout the country . . . these providers now serve almost all of the top 50 MSAs."

Even though Sprint claims that "fixed wireless service is not a viable substitute for wireline special access services in many cases," Sprint's own actions show that Sprint considers fixed wireless services to be suitable replacements for special access services. Sprint has invested heavily in fixed wireless technology to supply its backhaul needs. Not only does Sprint have thousands of active two-way microwave licenses throughout the country, Sprint has made a substantial investment in Clearwire as a fixed wireless provider of backhaul services.

⁴⁵ PAETEC, et al., Comments at 31.

⁴⁶ PAETEC, et al., Comments at 31, n.105.

⁴⁷ AT&T Comments, Carlton/Sider Decl. ¶ 46.

⁴⁸ Sprint Comments at 19.

⁴⁹ See FCC, Universal Licensing System Database; see also 47 C.F.R. § 101.65(b) (requiring a microwave licensee to cancel a license that has not been operated within one year).

⁵⁰ "Sprint is Clearwire's majority shareholder and . . . Sprint's plans for higher-speed data transmissions are heavily tied to Clearwire's success." Wall Street Journal (Nov. 8, 2009), http://online.wsj.com/article/SB10001424052748704402404574524152073150702.html.

In addition, Sprint has advised the Commission that fixed wireless "would provide an urgently-needed solution for affordable 'middle mile' backhaul for wireless carriers and Internet service providers in rural areas." According to Sprint, "[b]y far, the most cost-effective backhaul solutions, particularly in rural areas, can be provided by wireless fixed licensed point-to-point systems." 52

Fixed wireless providers are also marketing their high capacity services to business customers. For example, FiberTower says it "solves the access bottleneck by delivering high capacity services to enterprises" and that its "[s]ervices include wireless equivalents of NxT1, DS3, OC3 and Carrier Ethernet." Towerstream's "High Capacity Service is the cost-effective solution for businesses that require high levels of bandwidth and faster speeds." Tower Cloud's "core business is designing and building customized communication services with exceptionally reliable connectivity to each cell site." Airband's "Point-to-point offering leverages fixed-wireless technology to deliver private line services quickly" and "is not bound by

⁵¹ FiberTower Corp. et al., Reply to Oppositions, Unlicensed Operation in the TV Broadcast Bands; Additional Spectrum for Unlicensed Devices Below 900 MHz and in the 3 GHz Band, ET Docket Nos. 04-186 & 02-380, at 1 (May 18, 2009).

⁵² FiberTower Corp. et al., Petition for Reconsideration, Unlicensed Operation in the TV Broadcast Bands; Additional Spectrum for Unlicensed Devices Below 900 MHz and in the 3 GHz Band, ET Docket Nos. 04-186 & 02-380, at 3 (March 19, 2009) (internal citation omitted).

⁵³ See http://www.fibertower.com/corp/solutions-access.shtml. Exhibit 2 contains web pages showing that fixed wireless providers market their high capacity services directly to businesses.

⁵⁴ See http://www.towerstream.com/index.asp?ref=enterprise.

⁵⁵ See http://www.towercloud.com/services_products.shtml.

T1 or DS3 increments, so you have the flexibility to install just the bandwidth [you] need, from 10 Mbps up to GigE speeds."56

The evidence showing that fixed wireless providers have not only entered the marketplace, but have also targeted customers of high capacity services, is a sufficient basis for the Commission to include fixed wireless providers in any competitive analysis. ⁵⁷ By collecting data on fixed wireless providers, the Commission's analytical framework should be able to assess the impact of fixed wireless providers as intermodal competitors. There is no basis for the Commission to skip that step and exclude fixed wireless from its framework from the outset.

B. The Commission's Analytical Framework Should Be Based on Product Definitions
That Include All Competitive Alternatives.

Verizon explained that in assessing the competitiveness of high-capacity services, "the focus should be from the perspective of purchasers, and include all technologies that purchasers view as viable alternatives." Topper Decl. ¶ 26. Today, "DS-1 and DS-3 special access services are just one of several competing forms of high-capacity services available to buyers." *Id.*Traditional CLECs, cable companies, and fixed wireless providers all provide high capacity services that are competitive alternatives to special access services. The Commission's competitive analysis should therefore consider the full range of alternatives available to buyers of high-capacity services.

Verizon also pointed out that a product or service doesn't have to be a perfect substitute in all situations in order to be considered a competitive alternative from an economic

⁵⁶ See http://www.airband.com/wp-content/uploads/point-to-point-private-line_email-042909.pdf.

⁵⁷ See Attachment A: Reply Declaration of Michael D. Topper ¶ 5 ("Topper Reply Decl.").

perspective. Topper Decl. ¶ 36. So long as the product or service is considered by at least some customers to be a competitive alternative, the Commission should include that product or service in its analysis.

Some parties suggest that the Commission define very narrow product markets. This is nothing more than an attempt to stack the deck in their favor. Indeed, as Dr. Topper explains, the danger of defining the product market too narrowly is that it will skew the Commission's analysis and overlook important sources of competition. Topper Reply Decl. ¶¶ 4-6. As one commenter aptly observed, "'[i]f you define products and markets too narrowly, you will see all types of monopolies where, in fact, none exist. You may find Ford Motors has a 90 percent market share for 4X4 pickup trunks in a certain weight category in the color red in Albany County, GA.""⁵⁸

Sprint, for example, recommends that the Commission define separate product markets for DS1 service and DS3 service on the premise that "DS1 circuits are not substitutes for DS3 circuits, and vice versa." It would not be appropriate for the Commission to adopt such a narrow product definition.

At least some DS1 service customers do consider DS3 service to be a competitive alternative. The economics of such services – from both the demand and supply side – make one bandwidth or speed of service viable substitutes for other speeds of service, making them part of the same relevant product market. Topper Decl. ¶¶ 26, 35. From a functional perspective, a DS3 service is equivalent to 24 DS1 services, but the price of a DS3 service is typically not 24 times

⁵⁸ See Discovery Comments at 2, n.2, quoting Richard W. Rahn, "Obsolete Regulators," Washington Times (July 28, 2005), available at http://www.discovery.org/a/2750.

⁵⁹ Sprint Comments at 14.

the price of a DS1 service. It is more common for carriers to price DS3 service at about 9 times the price of a DS1 service. For customers who purchase 9 DS1 services, a DS3 service may be a competitive alternative because there is virtually no price difference between the two services from their perspective and, in addition, purchase of the DS3 service provides upside use potential without additional cost.

Moreover, customers typically purchase DS1 services and DS3 services in combinations that comprise complete circuits. A typical special access circuit will often have a DS3 channel termination or DS3 transport that is multiplexed to as many as 24 DS1 channel terminations. The Commission's analysis should take into account the fact that the customer typically purchases an entire circuit that includes both DS1 services and DS3 services. Because customers typically purchase both DS1 service and DS3 service in their special access circuits, they should both be included in the definition of the product market.

C. The Commission's Analytical Framework Should Be Based on Geographic Market Areas That Are Broad Enough to Include All Competitive Alternatives.

As Verizon explained in its comments, the Commission's analytical framework will need to select a geographic area for assessing competition that is based on marketplace realities and ease of administration. Verizon proposed using the current MSA-based regime for purposes of analyzing competition because it is consistent with the manner in which competitors market and deploy their high capacity services. Alternatively, the Commission could use rate zones within MSAs to analyze competition.

It makes little sense to analyze competition in geographic areas that are too small and numerous to administer. The choice of geographic market definition should "be guided by a cost-benefit analysis that balances accuracy in measuring competitive conditions against the cost